

TOP SECRET

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FM NPIC

1966 MAR 17 23 25 Z

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TOP SECRET.

CITE NPIC 6696.

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SUBJECT: CAMERA INFORMATION FOR MISSION 1030-1-

1. THE MISSION UTILIZED TWO PAN CAMERAS, FOUR HORIZON CAMERAS, A STELLAR CAMERA, AND AN INDEX CAMERA.

18 MAR 1966

2. CAMERA DATA

A.

MAIN UNITS	FORWARD	AFT	STAR HOR	PORT HOR
FOCAL LENGTHS (MM)	609.602	609.602	FWD 55.00	FWD 55.00
			AFT 49.90	AFT 55.00
FILTER (WRATTEN NO.)	25	21	25	25
APERTURE	F3.5	F3.5	F8.0	F6.3
SLIT WIDTH (IN.)				
EXPOSURE (SEC.)	.275	.175	1/100	1/100
FILM	3404	3404	3404	3404
RESOLUTION (L/MM)	190	200	NA	NA

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S/I UNITS	STELLAR	INDEX
FOCAL LENGTH (MM) PART 1	83.9987	38.3636
PART 2	84.1555	38.3305
FILTER (WRATTEN NO.)	NONE	21
APERTURE	F1.8	F4.5
EXPOSURE (SEC.)	2.0	1/500
FILM	3401	3400
RESOLUTION (L/MM) PART 1		70
PART 2		70
UNIT NUMBER	PART 1	D94/100/107
	PART 2	D82/195/102

3. LENS DISTORTION (PIN CUSHION) MM

A. MAIN UNITS	3	2	1	0	359	358	357
FWD UNIT	.001	.000	.000	.000	.000	.000	.001
AFT UNIT	.002	.001	.000	.000	.000	.001	.004
B. HORIZON CAMERAS (MM)	FWD				AFT		
	PORT	STAR	PORT	STAR			
(RADIAL) 10 DEGREES	.020	.010	.040	.010			
20 DEGREES	.070	.050	.080	.030			
(TANGENTIAL) MAX VECTOR	.025	.020	.025	.030			

4. CAMERA ANGLES	DEG.	MIN.
A. ANGLE BETWEEN PAN CAMERAS	29	45.54
B. DEPRESSION ANGLE BETWEEN HORIZON FWD STAR	15	39
AND PAN CAMERAS	FWD PORT	16
		01

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	AFT STAR	15	56
	AFT PORT	15	11
C. ANGLE BETWEEN STELLAR AND INDEX	PART 1	90	00.1
CAMERAS	PART 2	89	59.7

5. TIMING MARKS

FREQUENCY MARKS WILL APPEAR ON THE FILM AT A RATE OF 200 CYCLES PER SECOND.

6. IMAGE MOTION COMPENSATION DATA (CYCLE RATE (CPS), GROUND ANGULAR VELOCITY (GAV), AND PASSES WHERE USED).

REF. LEVEL			AMPL. LEVEL			PASSES
NO.	CPS.	GAV.	NO.	CPS.	GAV.	
8	.3215	.0291	3	.1298	.0117	1D1 THRU 16D1
7	.3377	.0305	3	.1298	.0117	20D1 THRU 79D1

7. PROGRAM TIME DATA

CAMERA ON TIME (ZULU TIME)					PROGRAM ON TIME	PROGRAM
					UP RAMP	DURATION
PASS	DAY	HR	MIN	SEC	SEC	SEC
1D1	9	23	25	13	946	70
4D1	10	04	03	08	1298	159
5D1	10	05	27	30	925	166
5D2	10	05	33	44	1299	135
5D3	10	05	37	35	1530	52
6D1	10	06	57	56	912	62

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6D2	10	07	03	19	1235	139
6D3	10	07	07	38	1494	52
6D4	10	07	11	45	1741	155
7D1	10	08	32	32	1148	321
8D1	10	10	01	23	1041	179
8D2	10	10	06	09	1326	52
9AE	10	11	15	49	73	49
14D1	10	19	13	32	1546	48
14D2	10	19	27	43	2397	73
16D1	10	22	16	32	1650	38
20D1	11	04	10	14	1064	214
20D2	11	04	15	06	1356	50
21D1	11	05	46	48	1421	249
23D1	11	08	41	20	1020	246
23D2	11	08	48	52	1472	110
24D1	11	10	14	17	1162	139
25D1	11	11	47	12	1301	177
30D1	11	19	31	35	1983	55
30D2	11	19	36	27	2275	102
31D1	11	20	56	18	1630	62
33D1	11	23	47	10	1011	139
35M1	12	02	45	27	837	170

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36D1	12	04	17	09	903	234
36D2	12	04	24	29	1342	50
36D3	12	04	26	21	1455	64
37D1	12	05	48	22	940	237
37D2	12	06	00	51	1689	152
39D1	12	08	50	57	1023	101
39D2	12	08	56	55	1381	159
47D1	12	21	05	08	1597	48
49D1	12	23	58	50	1149	74
50D1	13	01	28	27	1092	166
52D1	13	04	27	37	976	158
52D2	13	04	35	40	1460	143
53D1	13	05	57	37	942	58
53D2	13	05	59	31	1056	294
53D3	13	06	11	41	1787	151
54D1	13	07	35	40	1392	49
54D2	13	07	38	43	1575	200
55D1	13	09	00	43	1060	192
56D1	13	10	47	22	2026	144
58D1	13	13	44	55	1813	182
61D1	13	18	19	57	2014	77
61D2	13	18	27	11	2447	67
63D1	13	21	15	11	1663	46

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66D1 14 01 34 15	908	520
68D1 14 04 35 25	914	79
68D2 14 04 37 33	1043	148
68D3 14 04 43 15	1384	129
69D1 14 06 07 02	978	58
69D2 14 06 08 56	1093	138
69D3 14 06 21 05	1822	152
78D1 14 19 53 59	1714	62
79D1 14 21 23 08	1632	38

NOTE: DATA IS THE SAME FOR BOTH THE MASTER (FWD) AND SLAVE (AFT) UNITS.

8. TIME CORRELATION (MILLISECONDS)

PASS	CLOCK TIME	SYSTEM TIME	DIFFERENCE
9	142812.315	40626.1454	----
16	182449.026	80262.8407	.016
24	224359.051	35772.8496	.016
31	264034.498	75448.2818	.015
40	311388.404	36402.1707	.017
47	350997.983	76011.7358	.014
56	398389.821	37003.5578	.016
63	437985.832	76599.5559	.013
72	485316.777	37530.4861	.015
79	524962.958	77176.6551	.012

NOTE: ALL "DIFFERENCE" VALUES ARE PLUS.

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/END OF MESSAGE/